April 2009 **Mathematics** Engineering Science Achievement UTAH

The purpose of MESA is to increase the number of under-served ethnic minority and all female students who pursue course work, advanced study, and possible careers in mathematics, engineering, and science areas.

| | Actual # of students in school | % of total student body | Actual # of students in MESA | % of specific group in MESA | |
|-----------------------------|--------------------------------|-------------------------|---------------------------------------|--------------------------------------|-----------------------|
| African | 4044 | 0.40/ | 400 | 0.00/ | |
| Americans | 1941 | 2.1% | 188 | 3.2% | |
| American Indians/Alaskan | | | | | |
| Natives | 1079 | 1.2% | 143 | 2.5% | |
| Asians | 2553 | | | | SA |
| Hispanics/Latino | 20177 | 21.9% | 1649 | | ó of students in MESA |
| Pacific Islanders/Native | | | | | ents i |
| Hawaiians | 2372 | 2.6% | 313 | 5.4% | Ď |
| White Females | 30958 | 33.6% | 2063 | 35.6% | St |
| White Males | 32537 | 35.3% | 766 | 13.2% | Q. |
| Other/Unknown | 590 | 0.6% | 125 | 2.2% | % |
| Totals: | 92207 | 100.00% | 5793 | 100.00% | 6.28% |



MESA...IT'S ALL ABOUT YOU!

MESA is growing. enrolled. Yet, we can do so much more.

There is a need to ensure that everyone happy to oblige. involved with MESA is actively speaking about the wonderful things going on in our program. This newsletter is all about you! Everyone from students to district personnel should be raving about what our kids are doing. I personally want to thank all of you for your Not that this isn't happening, but it would be hard work and efforts in helping our students nice to have it all in one spot. There are find the best in themselves while having a amazing things going on in our schools through whole lot of fun in the process. MESA and it's time you had a way to see them. This newsletter is a way to do that.

So...

The monthly eMESA is born. Write about what's going on in your districts, schools,

Thanks to the clubs; have your students write and turn in wonderful work of MESA Coordinators, reports to you on what is going on with their Counselors, and Advisors our clubs continue to club. This newsletter is a forum for you to reach grow. As can be seen from the information your students, parents, and communities to tell given on the last at-a-glance report (see above them about the great things going on in MESA. chart), our numbers are strong at 5793 members Tell us your important calendar dates and we'll be sure to include them. Use this as a way to get your information out to the world, we'll be

You guys Rock!

Jeff Ojeda, State MESA Specialist



Fremont High School Weber School District

Above: This is a marble roller coaster that our MESA club worked on. (It really would make it through all the loops!)

Heather Johnson-Math Department

WEBER

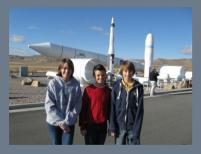
12/4/08



Golden Spike National Historic Site



ATK Launch Systems



MESA officers

South Ogden Jr. High School

Golden Spike National Historic Site—a park ranger relayed the events that lead up to the driving of the last spike.

ATK Launch Systems—they took a tour of the outside exhibit and then were able to watch a static test on the launch site.

Judy Hoskins—MESA Advisor

MESA DAMA Jordan School District

Finding engaging activities and field trips for the MESA students in Jordan District is an enormous challenge and reward for its MESA advisors/counselors. This year has been no exception. This challenge has been overwhelmingly realized this year. Here are some of the activities listed as provided by the MESA advisors:

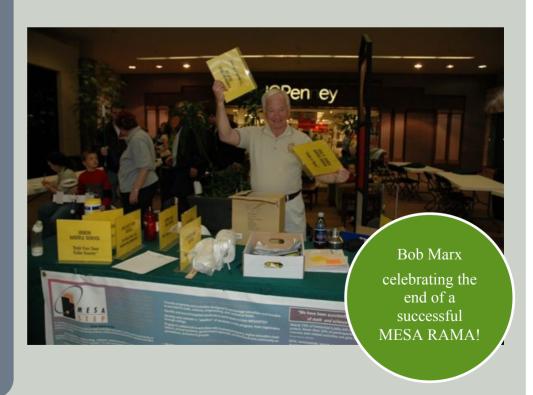
A Mock CSI, "Barbie Bungee", Parent Night, Marshmallow Bridges, College Information/Computers, ATK Launch Video and Ball Launch Challenge, Write-it Do-It, Paper Airplane Construction and Contest, Bridge Building, Moon Cycles, MESA "Taboo" Game, Guest Speaker from Schiff Nutrition, "How College Can Get You: A Good Job, A Boat, A Trip to Las Vegas, and Love", Spaghetti Towers, Gumdrop/Toothpick Dome Building, Roller Coasters, Biomes and Ecosystem, Ken Petersen's Mouse Trap Cars, Archaeology, Trebuchet, Bob Marx, GPS, Utah Mentor, Math and Probability, "Ooblek Activity", Silly Putty with

Styrofoam Beads, College Scavenger Hunt, Chemistry, Sound Waves, Straw Towers, Speak It and Build It, Line Design, Group "Build a Square", Filled 96 backpacks for homeless shelter, Delivery of cards made by MESA students to a rest home.

And some of the Field Trips include:
Planetarium, SACNAS, Body Worlds,
Biotech JATC, Sego Lily Gardens, SLCC
High School MESA Day, SLCC Middle
School MESA Day, U of U Chemical
Engineering, Planning for Physics Day at
Lagoon in MAY.

MESA students and advisors in Jordan School District just completed MESA RAMA, an event where each MESA school brainstormed math, science, and engineering ideas. These ideas were fun, interactive, and they required hands-on participation. It was also a way to reward them for their yearlong participation. Their projects were simply fantastic. Sixteen high schools and middle schools participated and their project titles include:

Trebuchet "Games", DNA Separation Activity, Artificial Snow – "An Engineering



Air Pressure and Density, Acids and Bases, as Magic Numbers, Quicksand Goo, Build Your Own Roller Coaster, Cartesian Divers, Paper Aeronautics, Tetrahedrons, and Candle Experiment.

Dr. Lyn Burningham, coordinator of MESA motivation for MESA RAMA. She gets down and dirty as she assists with all facets of the planning, setting up, and even the cleaning up phases of the three hour extravaganza. Toni Soeffker, the secretary and organizer, things run so perfectly. Bob Marx, the MESA assistant, gets to track the MESA advisors and students in their planning. He also has tons of fun taking pictures of the event, helping with the set up, ongoing requirements, and being a marvelous "gofer".

Mall on March 14, 2009. The Mall has cooperated for the past few years allowing a totally visible and open court space at no charge on a Saturday. Numerous students, parents, and community patrons got the Bob Marx, MESA Assistant "feel" of the event and responses were extremely complimentary. Thanks to the Mall officials who allow Jordan to come to their spacious and comfortable facility.

Guests referred by members of the IAC and STEP Directors is another part of MESA RAMA. Those who were represented at the event were MOOG, Weber State University, and Intermountain Healthcare. Our thanks to them for participating in the event. Each had interesting and informative exhibits. Thanks also to Dr. Kenneth Petersen for not only getting the word out to these groups but also coming to support the event. A special thanks to Jeff Ojeda, of the Utah State Office of Education, for his visit to MESA RAMA and his constant support. MESA RAMA is an annual event and encourages and appreciates its state wide support.

Our MESA students will be recognized at the MESA Banquet Award on April 30,

Application", Bernoulli's Cheese Ball, Solid 2009. Three recipients from each MESA or Liquid, Gum Drop Towers, Wind Energy, school will be recognized for their selection "Outstanding Math Student", "Outstanding Science Student", outstanding qualities in leadership, overall outstanding, service, or most improved. We look forward to this time to recognize and honor the parents of these students as well

in Jordan District, is the strength and Jordan District is pleased to have six of its MESA seniors be recipients of MESA/STEP Scholarships. The awards will be presented on April 13, 2009. They represent Jordan High (2), Copper Hills High, Itineris Early College High (2), and West Jordan High. A oversees the maintaining of spaces, special thanks to Intermountain Healthcare, materials, and scheduling. She makes SHRM, U of U Math, UHEAA/MESA/STEP, and UT Science Advisor's Office for sponsoring the scholarships to these students. Our congratulations go to all of the scholarship recipients throughout the entire State's MESA community.

Jordan is looking forward to a great year for 2009-2010 and wishes the new Canyons MESA RAMA was held at the South Towne District much success. We will miss working with Jordan High, Hillcrest High, Eastmont Middle, Midvale Middle, and Union Middle School



Copper Hills **DNA Separation Activity**

RAMA '09



South Jordan Middle School Candle Experiment



Bingham High **Trebuchet Games**



Mt. Jordan Middle School **Ouicksand Goo**



Elk Ridge Middle School Air Pressure and Density



Joel P. Jensen Middle School Acids and Bases

| AMES 2009 SLVSEF Awards | | | | | | | | |
|--|--------------|-----------------|----------------------|--|--|--|--|--|
| Special Award | c | | | | | | | |
| Award | | Student | | | | | | |
| American Psychological Association | 1st | Skarleth | Matute | | | | | |
| American Society of Civil Engineers | 1st | Christopher | | | | | | |
| Great Basin Chapter of Air & Waste Management | 1st | Nathan | Nguyen | | | | | |
| Intel Excellence in Computer Science | 1st | Matt | Vitelli | | | | | |
| MU Alpha Theta | 1st | Christopher | | | | | | |
| SentrX Animal Care | 1st | Lauren | Gutierrez | | | | | |
| Symantec 10K | 1st | Matt | Vitelli | | | | | |
| The Leonardo | 1st | Matt | Vitelli | | | | | |
| U.S. Air Force | 1st | Chas | Blakemore | | | | | |
| U.S. Army | 1st | Rachel | Howery | | | | | |
| U.S. Green Building Council, Utah Chapter | 1st | Ludmila | Nicolia | | | | | |
| U.S. Metric Association | 1st | Chas | Blakemore | | | | | |
| U.S. Navy/U.S. Marine Corps | 1st | Chas | Blakemore | | | | | |
| Utah Council of Teachers of Mathematics | 1st | Matt | Vitelli | | | | | |
| American Meteorological Society | 2nd | Christopher | | | | | | |
| U.S. Navy/U.S. Marine Corps | 2nd | Matt | Vitelli | | | | | |
| U.S. Army | 3rd | Brady | Bowen | | | | | |
| U.S. Air Force | 4th | Matt | Vitelli | | | | | |
| o.s. All Force | HM | Nathan | Nguyen | | | | | |
| | • | Nachan | rigayen | | | | | |
| Category Awar | | | | | | | | |
| Award | | Student | | | | | | |
| Senior Division Team | N/A | Sarah Shwan | Niitsuma Javdan | | | | | |
| Animal Sciences | 1st | Bryana | Snyder | | | | | |
| Behavioral & Social Siences | 1st | Danielle | Niitsuma | | | | | |
| Biochemistry | 1st | Blake | Hethmon | | | | | |
| | 1st | Chas | Blakemore | | | | | |
| Chemistry Computer Science | 1st | Matt | Vitelli | | | | | |
| Energy & Transportation | 1st | Peter | Tran | | | | | |
| Environmental Management | 1st | Nathan | Nguyen | | | | | |
| Animal Sciences | | Lauren | Gutierrez | | | | | |
| Behavioral & Social Siences | 2nd 2nd | Skarleth | Matute | | | | | |
| Engineering: Materials & Bioengineering | 2nd | Cesia | Dominguez | | | | | |
| Environmental Sciences | 2nd | Christopher | | | | | | |
| Engineering: Electrical Mechanical | 3rd | Ludmila | Nicolia | | | | | |
| Engineering: Electrical Mechanical Engineering: Materials & Bioengineering | 3rd | Vincent | Holt | | | | | |
| Medicine & Health Sciences | 3rd | Maia | Bromley-Dulfano | | | | | |
| | 1 | | Bronney Banano | | | | | |
| Westminster Schola | | | | | | | | |
| Westminster Scholarships, *1K, 80K | N/A | Blake Bryana | Hethmon Snyder | | | | | |
| | | Cesia | Dominguez | | | | | |
| | | Lauren | Gutierrez | | | | | |
| | | Ludmila | Nicolia | | | | | |
| | | Maia | Bromley-Dulfano | | | | | |
| | | Nathan | Nguyen | | | | | |
| | | Peter | Tran | | | | | |
| | | Rachel | Howery | | | | | |
| Westminster Scholarships, *1K, 80K | | Sarah | Niitsuma | | | | | |
| | - | Skarleth | Matute | | | | | |
| | | Vincent | Holt | | | | | |
| ISEF Awards | | | | | | | | |
| Award | | | | | | | | |
| | | Student | | | | | | |
| Individual Intel ISEF Grand Champion | | Student Matt | Vitelli | | | | | |
| | Place | | Vitelli Blakemore | | | | | |
| Individual Intel ISEF Grand Champion | Place N/A | Matt | | | | | | |

AMES' SCIENCE FAIR SUCCESS...

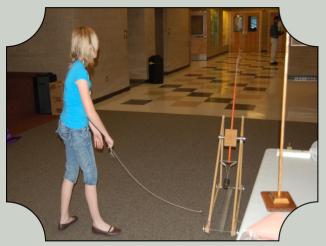
In its 4th year of participating in the local, regional, and scholarships. Of the AMES students competing in the international science fair, AMES (Academy for Math, regional fair, 30 are MESA students!!!

Engineering, and Science) has performed with a high level of success. Initially, AMES received corporate funding from Micron and I-M Flash to begin a science fair program. As a MESA school that invites and supports a diverse student body with a focus on math and science, AMES directs many resources to its students. But science fair is a big part (its all star team). This year at the regional fair, AMES students earned 49 awards including 5 students who will be attending the international fair in May to compete for over \$4 million in Al Church, Principal

Great Tanya Vickers, AMES science fair coach/mentor, work has also recently authored a book, "Teen Science AMES! Fair Sourcebook," (refer to SL Tribune 3/23). Ms. Vickers, committed to the principles of MESA, will be teaching a course this year for the U of Utah College of Education, on assisting teachers with science fair activities, using her book as the main text.

| | Major monetary scholarships: | International Science Fair Finalists (only 3 projects are selected) | Entered in 12/17 categories. 14 projects received category awards. |
|--|--|--|---|
| 2009 Salt Lake Valley Science and Engineering Fair 17/18 AMES projects recognized with 1 or > awards Total of 49 awards to AMES students | 10K Symantec Scholarship (Matt Vitelli) 80K scholarship to Westminster College (Sarah Niitsuma) 12-4k scholarships to Westminster College Total= \$138,000 | 1-individual grand award winner Team grand award Runner up and alternate, grand award | 7 1 st place 4 2 nd place 3 3 rd place |

DAVIS SCHOOL DISTRICT RECRUITMENT NIGHT—9/11/08 NORTH DAVIS JR. HIGH









Synamically Expanding Out Future

MESA Contact

Jeff Ojeda jeffrey.ojeda@schools.utah.gov (801) 538-7945

Tandalaya Stitt tandalaya.stitt@schools.utah.gov (801) 538-7977